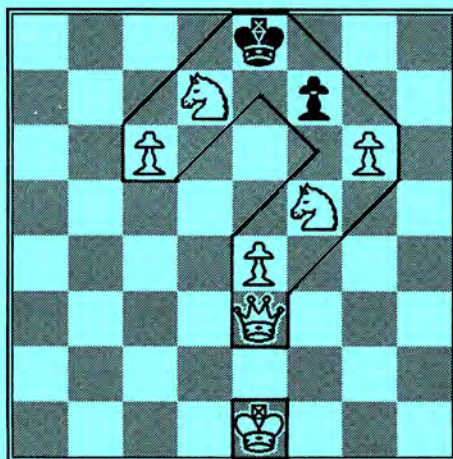


John Rice

Chess Problems for Solving



Mate in two

John Rice

Chess Problems for Solving

Waterthorpe Information Services Limited

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Dedicated to
The British Chess Problem Society

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The diagrams were produced by the excellent *Glossman Laser* software by
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Notation and abbreviations

In this booklet the chess pieces are designated by the following abbreviations:

K : King	WK : White King
Q : Queen	BK : Black King
R : Rook	etc.
B : Bishop	
S : Knight	
P : Pawn	

(Problemists use S [= German *Springer*] for Knight rather than N.)

The squares on the diagram are each given a letter and a number, the letters a-h running from left to right, and the numbers 1-8 from bottom to top. So the bottom left-hand square is a1, and the top right-hand square h8.

Moves are shown as follows:

- 1 Re3 : White Rook plays to square e3.
- 1 Re3+ : White Rook plays to e3 and gives check.
- 1 Rbe3 : White Rook on b3 plays to e3; this would be used if the other WR were on the e-file or on f3, g3 or h3 and could also play to e3.
- 1 R5e3 : White Rook on e5 plays to e3 (i.e. not WR on e1 or e2 to e3).
- 1...Re3 : Black Rook plays to e3.
- 1 Rxe3 : White Rook captures a black unit on e3.
- 1 e3 : White pawn plays from e2 to e3.
- 1 dxe3 : White pawn on d2 captures a black unit on e3.
- 1 e8S : White pawn on e7 promotes to Knight on e8.
- 1 dxe8S : White pawn on d7 promotes to Knight by capturing on e8.
- 1 OO : White castles with Rook h1.
- 1 OOO : White castles with Rook a1.
- 1 R~ : White Rook plays a random move (see no.15), i.e. the Rook leaves the square it is on and plays to no square in particular.

Some other symbols are explained in the Introduction.

INTRODUCTION: SOLVING CHESS PROBLEMS

Each one of the diagrams in this booklet shows a composed position in which White, playing up the board, can force mate in two moves, against any black defence. What the solver has to do is to discover the one white move (and there is only one in each case) which will achieve this objective. This white move, called the **key**, may threaten a certain second move which Black may try to prevent, or it may place Black in *Zugzwang*, i.e. wait for him to commit himself. Black will usually have a number of **defences** at his disposal. In a threat problem these will lead to a mate other than what is threatened, while in a problem with a waiting key (a **block problem**) every available black move will constitute a defence, and White will be able to mate after each one.

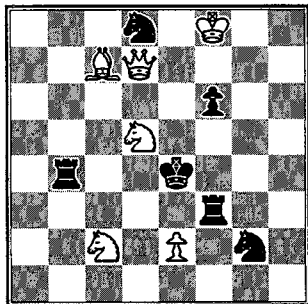
You can solve these problems by trial and error if you like, but this is a lengthy and not very rewarding procedure. A quicker method is to look first at the moves that Black has at his disposal. You should establish whether you are trying to solve a threat problem or a block problem, keeping in mind that every piece on the board has some purpose. Perhaps a strong black move, e.g. one that captures a powerful white unit or secures a **flight-square** for the BK, does not have a **set** reply in the diagram position (i.e. a white mate that could be played in reply if Black moved first). Providing a mate to follow such a move might lead you to the key, or at the very least it might suggest a number of possible keys. Many problems have close **tries**, i.e. white moves which almost solve but which fail to a single black **refutation**.

Much the best way of solving involves working out the **theme** of the problem. The composer will usually have had a particular idea in mind during the process of composition, an idea that is based on the interaction of the pieces on the board. No two chess problemists would agree on the definition of the word "theme", but what is meant should become apparent to you as you solve the problems here. In some cases the theme is very slight, e.g. checks by Black; in others it is a much more complex matter. By the way, the number of pieces on the board is not necessarily an indication of the complexity of the theme.

Diagrams A, B and C show problems of the kinds that you will find in this booklet. Black's strongest move in **A** is 1...Se6+, but this is provided with a mate, 2 Qxe6. However, Black has two moves that are of greater interest to a problemist: 1...Se3 and 1...Sf4. What makes these moves interesting is that in each case the BS arrives on a square where it interrupts (or **interferes** with) the line of action of the BR f3.

White has mates already prepared for these moves: 1...Se3 2 Sc3, and 1...Sf4 2 Sxf6. Each time the WS exploits the BS's interference with the BR to mate on a square guarded by the R in the diagram position. The expert solver will look for a key which allows these two black interference moves to be played as defences. It is most unlikely that this will be a block problem; what mate could be arranged to answer 1...Sh4 for example? So a threat must be sought, and if those defensive moves by the BS are to play a part, then the threat must be 2 Qd5. However, this will involve moving the S that occupies d5 at the moment, the very piece that gives the set

A



mates on c3 and f6. What happens is that the key, 1 Se7 (providing an extra guard on f5), changes White's replies to 1...Se3 and 1...Sf4: the Q now mates on d3 and f5 respectively. The set check is still there, unchanged: 1...Se6+ 2 Qxe6; and Black has a further defence against the threat, 1...Rb5, to which White replies 2 Qd4 (also 1...Rd4 2 Qxd4).

If this problem were among the 108 problems for solving in this booklet, the full solution would appear as follows:

Set: 1...Se3/Sf4 2 Sc3/Sxf6.

Key 1 **Se7** (>2 Qd5) Se3/Sf4/Se6+/Rb5 2 Qd3/Qf5/Qxe6/Qd4.

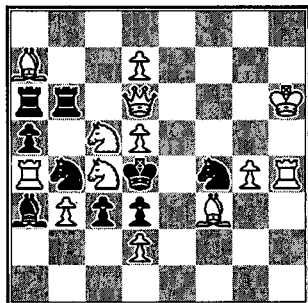
As you see, the black defences are given in sequence, separated by /, and then follow the white mates in the same order, similarly separated. The symbol > is used to indicate a threat.

It is worth commenting on the use made of the WK in this problem. By tradition the WK is always on the board in problems of this kind (which are known as **direct mates**, where White mates Black in a stipulated number of moves, whatever Black may play). If the WK were removed from the board here, White would have a second solution: 1...Sxf6+ Rxf6 2 Qd3; and the problem would therefore be **unsound**. Placing the WK on f8 ensures that this will not work: 1 Sxf6+? Rxf6+! (The question-mark is used to denote a try, and the exclamation mark the refutation of that try.) The BS d8 performs various useful functions. In the first place, of course, it prevents immediate mate by 1 Qe6, and it also gives a check on that square, which counts as a **variation** (the term used for distinct defences and mates). Secondly, it guards c6, so that White does not have a second threat 2 Qc6 (the fact that this mate is playable after 1...Sb7/Sc6/Sf7 is unimportant, since these moves do not defend against the threatened 2 Qd5). And thirdly the Sd8 shields the WK from check on the top rank from the R b4.

Much of the play in problem **B** depends on white and black **lines**. The WQ is pinned on the 6th rank by the R b6; and White has three **line-pieces** (two Rs and one B) all directed at the BK, but with their lines of action doubly **masked**, in each case by one white and one black unit. The solver should look for play arising from the moves of these masking units. The strong move 1...Rxd6+ has a set reply, 2 Se6, a double checkmate. The move 2 Se6

also follows 1...Se6 and 1...Sg6 in the set play, but only as a single checkmate. 1...Sfxd5 looks as if it might be of interest, because it is a **self-pin**, and indeed there is a set reply that exploits the fact that the S cannot return to f4: 2 g5. But 2 Se6 is playable as well, which suggests that the key is made by the Sc5, so as to eliminate this alternative mate. By placing a second guard on c5, the key 1 Sb7 threatens a mate by the WQ moving along the pin-line: 2 Qf6. This is possible not only because of the extra guard but also because the key pins the BR b6. We have seen how the self-pin 1...Sfxd5 allows 2 g5; what happens if the other BS self-pins on the same square? (These moves defeat the threat because the Q would unpin the S in moving to f6 and so allow 2...Sxf6!)

B



1...Sbxd5 is answered by 2 Sxa3, opening fully the white **battery** (a4-d4) which the BS b4 has partially opened by moving away. This S has a second interesting defence, 1...Sc6, threatening to interpose the S on e5 if White plays his threat. But 1...Sc6 unpins the WQ and so allows 2 Qxf4. There are two further unpins of the Q, by the other S: 1...Se6 (preventing 2 Qf6 by arrival on e6) 2 Qe5; and 1...Sg6 (threatening 2...Se5) 2 Qc5. Notice how the unpinned WQ's mates are differentiated by the moves of the BSs. A BB on g8, playing to e6, would defend against the threat but would enable White to play any of the three mates separated by the arrival of the Ss on c6, e6 and g6. Notice, too, that the BBa3 has two functions: it guards c5 after 1...Sc6 and so helps to determine White's mating move; and it ensures a unique reply to 1...Sbxd5. Black has two other defences in this problem: 1...Sh5, allowing 2 gxh5, and 1...Rxa7, which enables White to play 2 Qxb6. The full solution reads:

Set: 1...Rxd6+/Se6/Sg6 2 Se6/Sxe6/Se6.

Key 1 **Sb7** (>2 Qf6) Sbxd5/Sfxd5/Sc6/Se6/Sg6/Sh5/Rxa7 2 Sxa3/g5/Qxf4/
Qe5/Qc5/gxh5/Qxb6.

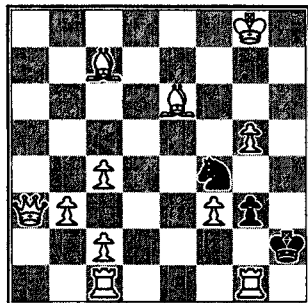
The P d7 (needed to prevent a second solution by 1 Sd7) makes a try by 1 d8Q? (>2 Qh8,Q8f6), refuted by 1...Sc6!, but as no new play is introduced this try cannot be regarded as **thematic**.

The tries in problem C, on the other hand, are certainly thematic. Here the solver's attention is immediately caught by the position of the BS and BP, on a diagonal between a WB and the BK. If the P moves, White can play 2 Bxf4, while a move of the S to e.g. h3 allows 2 Bxg3. 1...Sg2 prevents this mate but **blocks** g2 and so allows 2 Rh1. But three other moves of the S also prevent 2 Bxg3: 1...Se2, 1...Sh5 and 1...Sxe6. These will need to be catered for unless White can make a threat. Actually the problem looks very like a **waiter** (block position), in which the WQ, having nothing to do in the initial position, will no doubt make the key. 1 Qf8? and 1 Qe7? look attractive, as 1...Se2 and 1...Sxe6 will lead to mate on the h-file each time. But 1...Sh5! refutes both these tries. 1 Qd6?, which places the Q on the significant diagonal, allows 2 Qxg3 after 1...Sxe6 (and incidentally changes the mate after 1...g2 to 2 Qxf4), and 2 Qd2 after 1...Sh5, exploiting the pin of the P g3. But 1...Se2! has no answer. What happens if White tries 1 Qc5? or 1 Qa7? 1...Sh5 and 1...Se2 both allow 2 Qf2, again exploiting the pin of the P. But now 1...Sxe6! is the refutation. So the key is 1 Qb2!, which enables White to mate by 2 Qh8 after 1...Se2 and 1...Sxe6, and by 2 c3 after 1...Sh5. As before, 1...Sh3 allows 2 Bxg3, and 1...Sg2 2 Rh1.

Here is the solution in full:

Try 1 Qf8? Sxe6,Se2 2 Qh6. 1...Sh5! Try 1 Qe7? Sxe6,Se2 2 Qh7. 1...Sh5! Try 1 Qd6? g2/Sxe6/Sh5 2 Qxf4/Qxg3/Qd2. 1...Se2! Try 1 Qc5,Qa7? Sh5,Se2 2 Qf2. 1...Sxe6! Key 1 **Qb2!** g2/Se2,Sxe6/Sh5/Sh3/Sg2 2 Bxf4/Qh8/c3/Bxg3/Rh1.

C



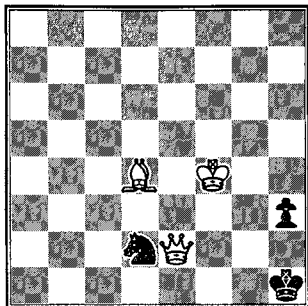
The presence of all the units in the diagram can be accounted for. Alternative keys by the Q are prevented by the WPs b3, c4 and f3, while the WK prevents the Q from reaching h8 after 1 Qf8? The WP g5 denies the WQ access to h5 from c5 and to h4 from e7. The WB is conveniently placed on e6 to prevent 2 Qh6 after 1 Qd6?, and 2 Qe2 after 1 Qe7? If the other B were on b8, for example, 1 Qa7! would also solve (1...Sxe6 2 Qh7!).

* * * * * *

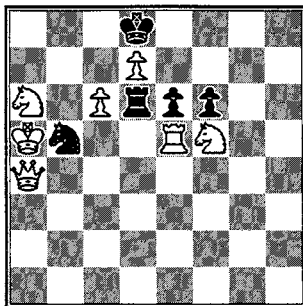
All the problems in this booklet were assembled specifically for a solving competition. Consequently the composer's principal aim is to puzzle and perhaps surprise the solver. At the same time a variety of themes and ideas is presented, in the hope that the novice solver will learn something about two-move chess problems. To assist this process, a commentary appears with the solution where appropriate. At their first occurrence, technical terms appear in bold type, as in this introduction. That part of the commentary printed in italics refers specifically to the **construction** of the problem, so that the ambitious solver keen to try his hand at composition can pick up a few tricks of the trade.

None of these problems has been previously published, though it is likely that in many cases similar, if not identical, positions will have appeared before. Such forerunners are known as **anticipations**. The purpose of this collection is not, of course, to present completely original work, but to provide a series of problems to challenge the solver. The questions of anticipation and **originality** are, therefore, largely irrelevant. Every problem has been tested by computer and is thus guaranteed to be **sound**, i.e. there is in each case only one key that solves the problem. Enjoy your solving!

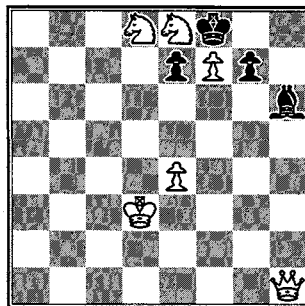
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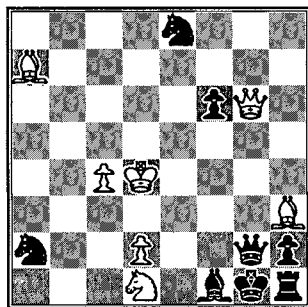
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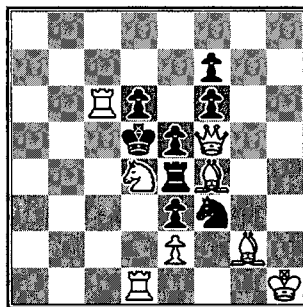
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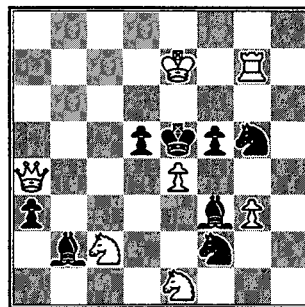
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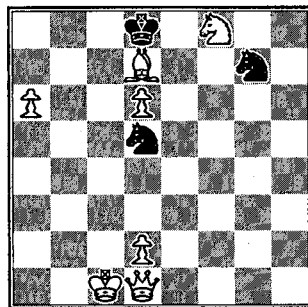
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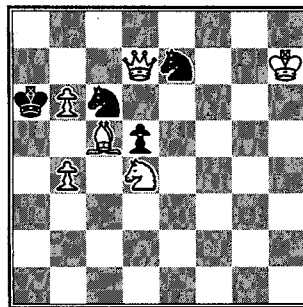
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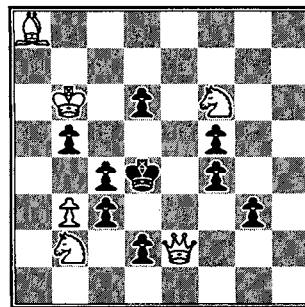
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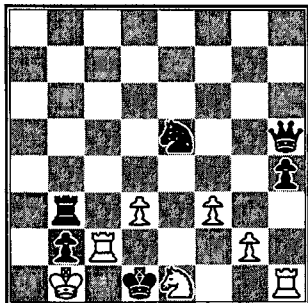
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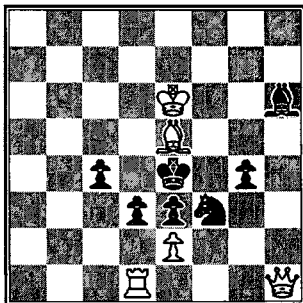
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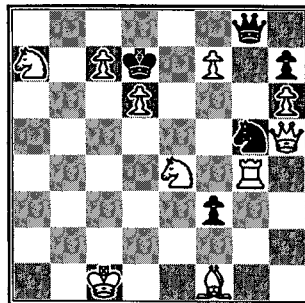
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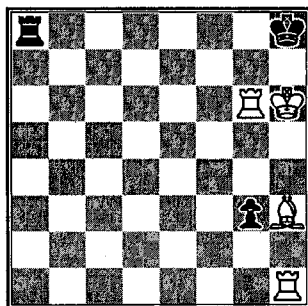
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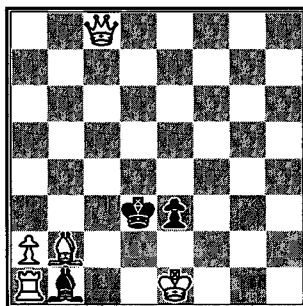
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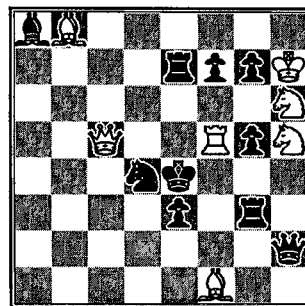
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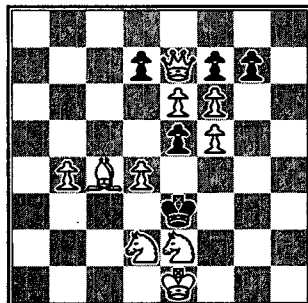
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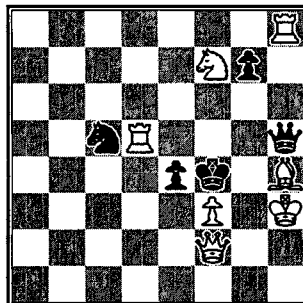
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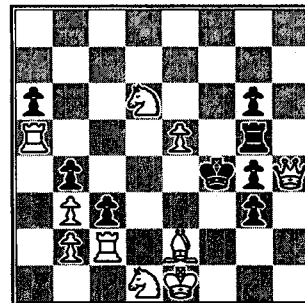
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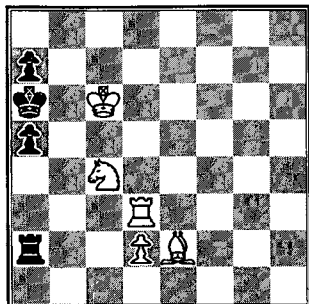
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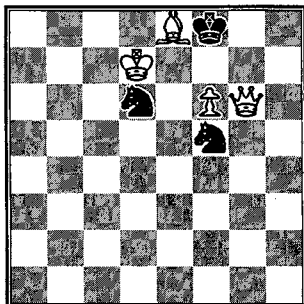
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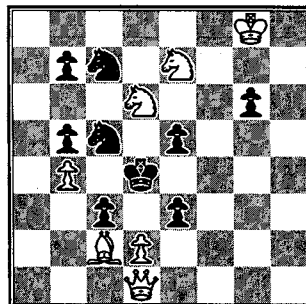
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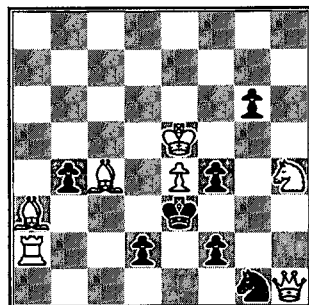
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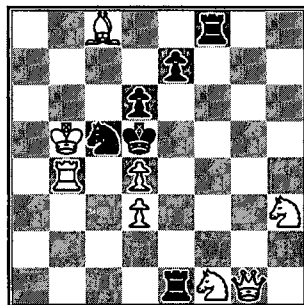
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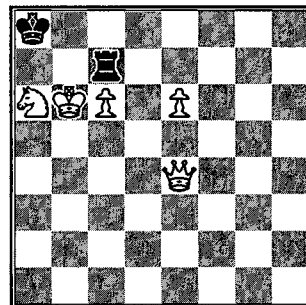
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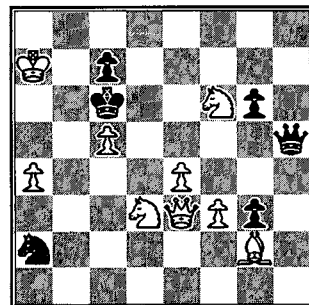
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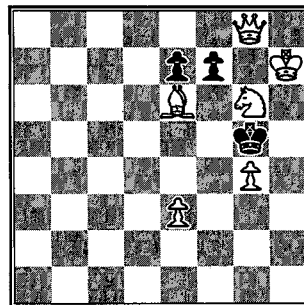
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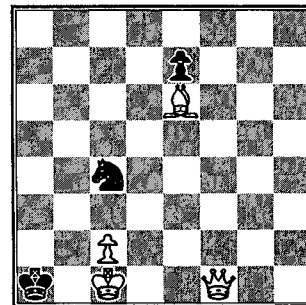
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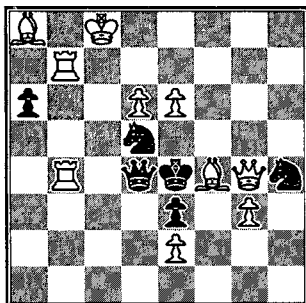
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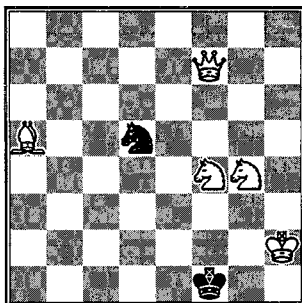
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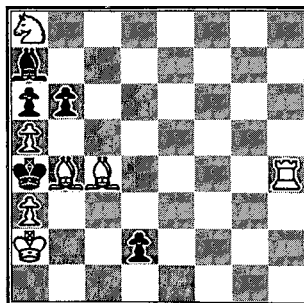
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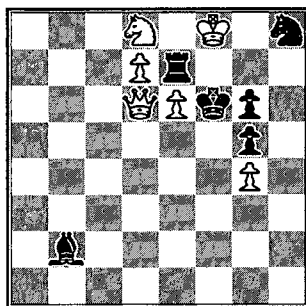
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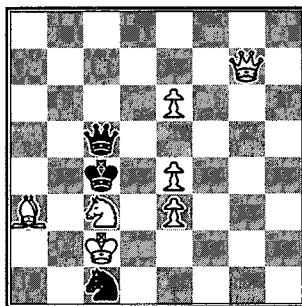
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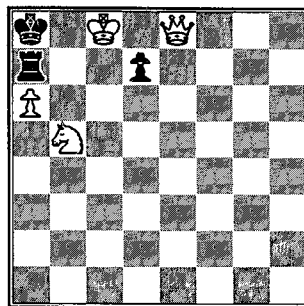
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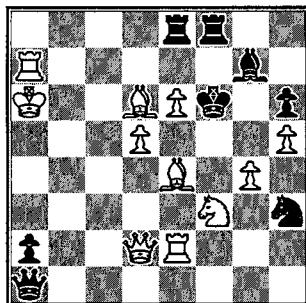
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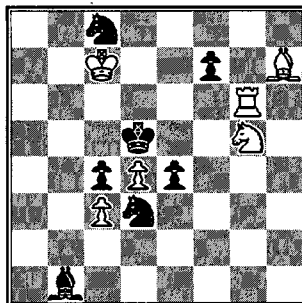
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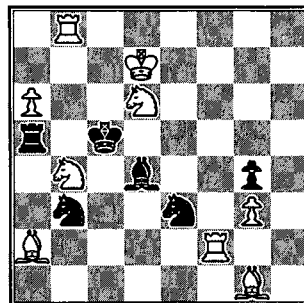
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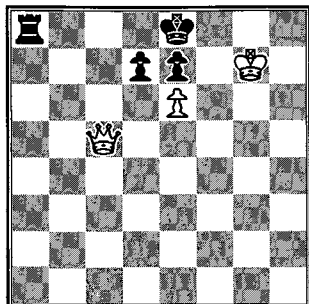
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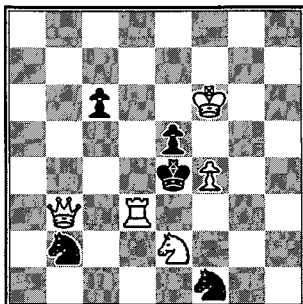
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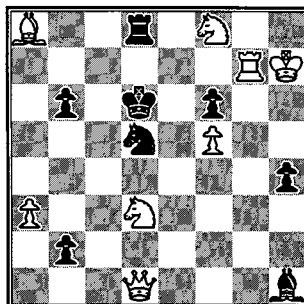
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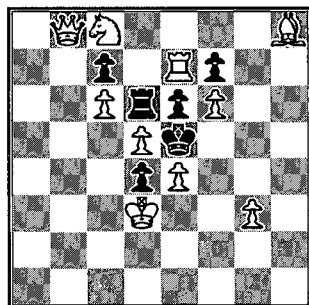
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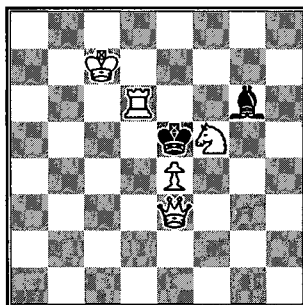
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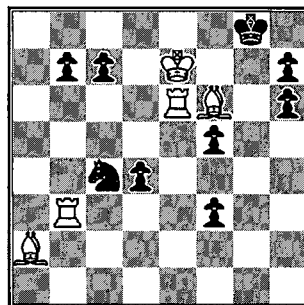
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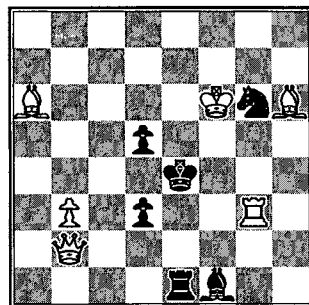
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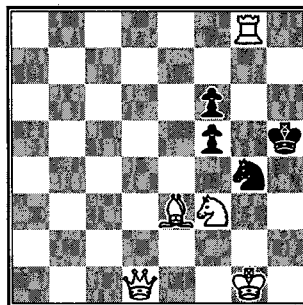
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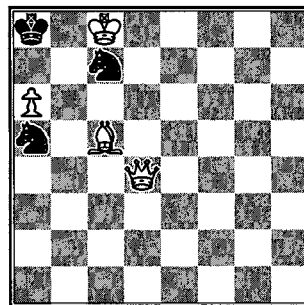
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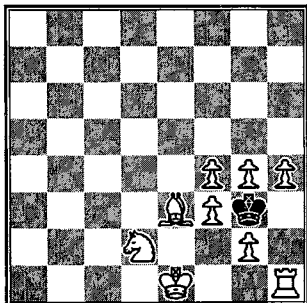
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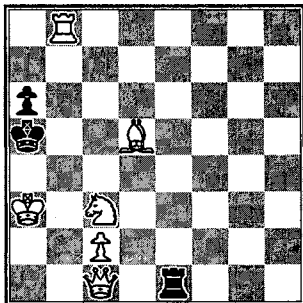
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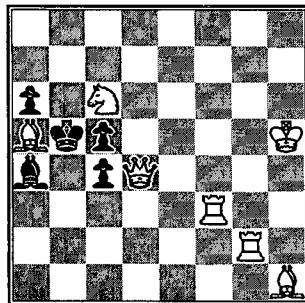
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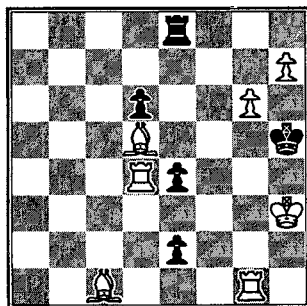
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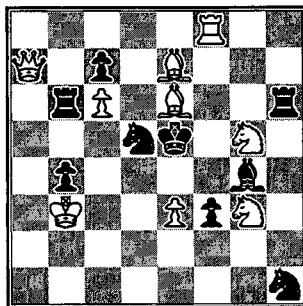
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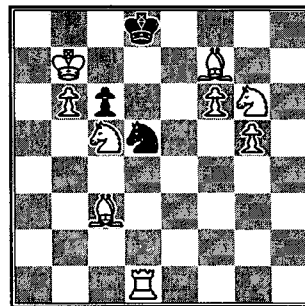
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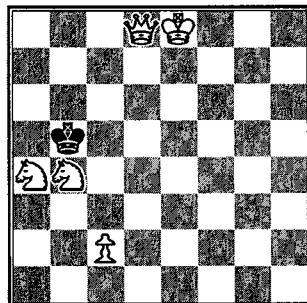
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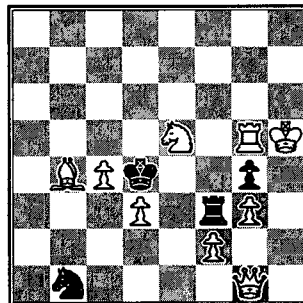
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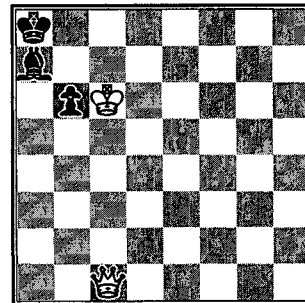
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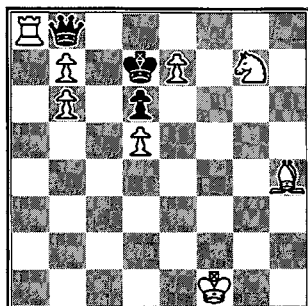
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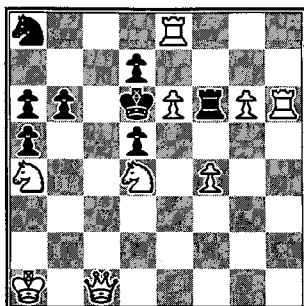
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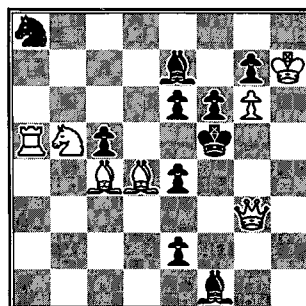
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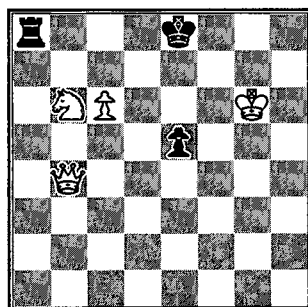
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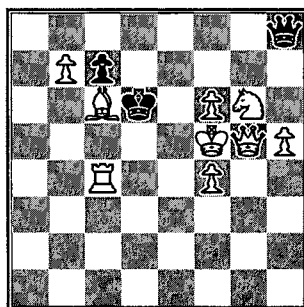
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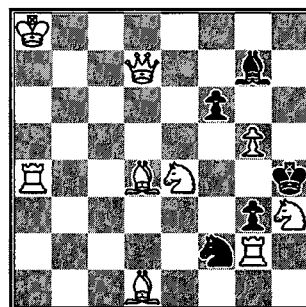
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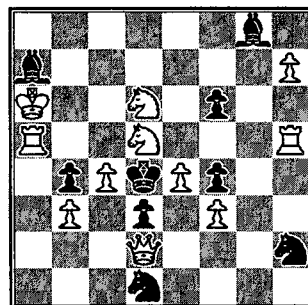
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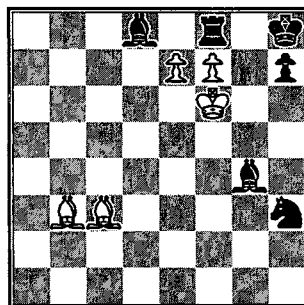
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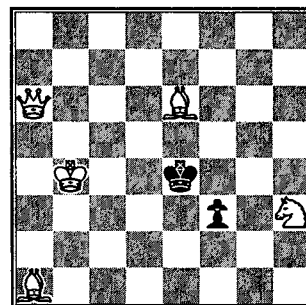
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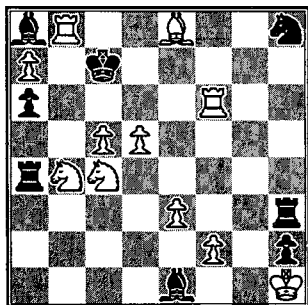
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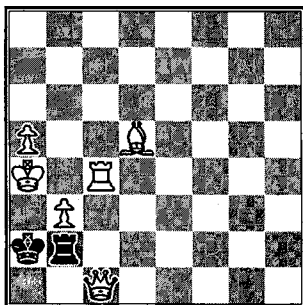
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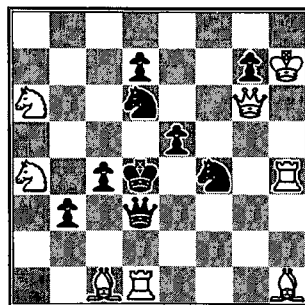
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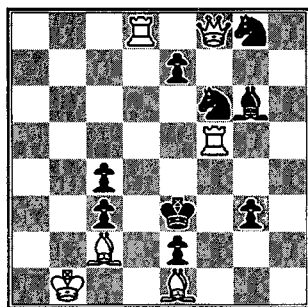
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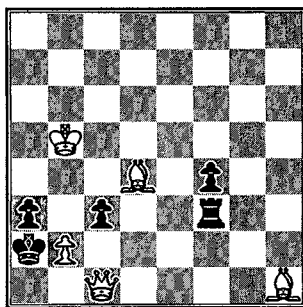
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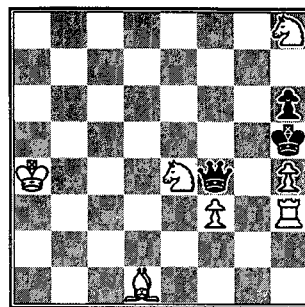
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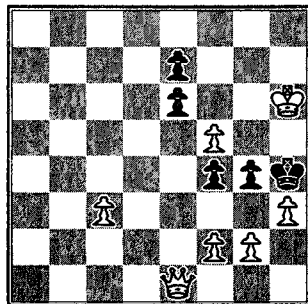
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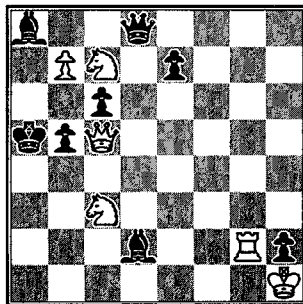
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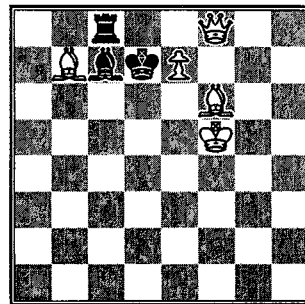
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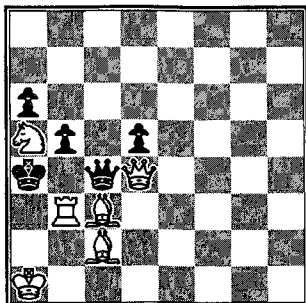
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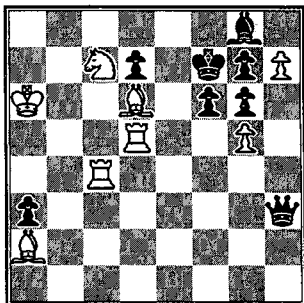
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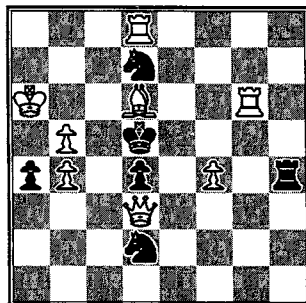
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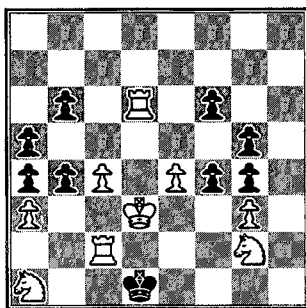
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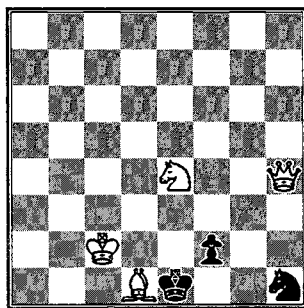
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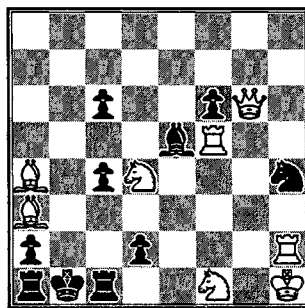
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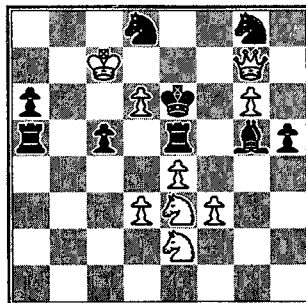
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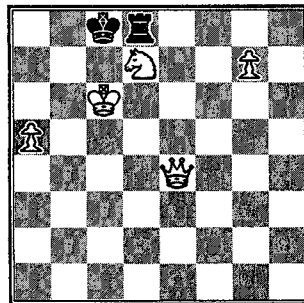
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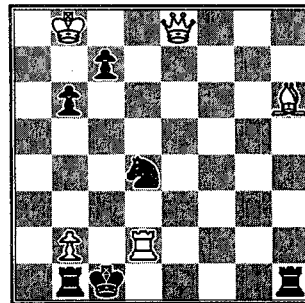
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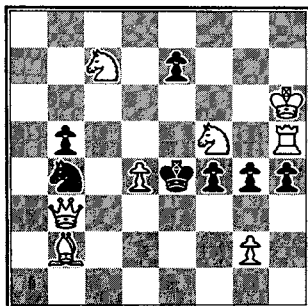
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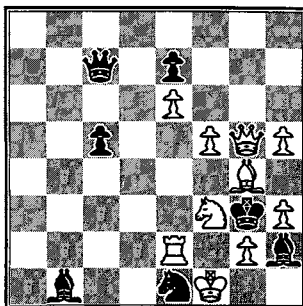
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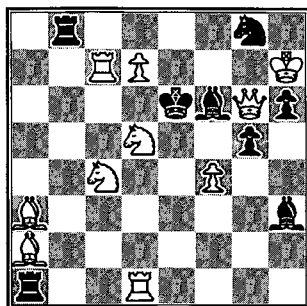
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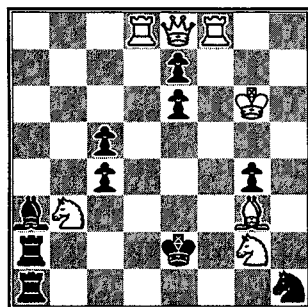
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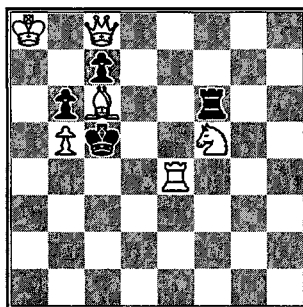
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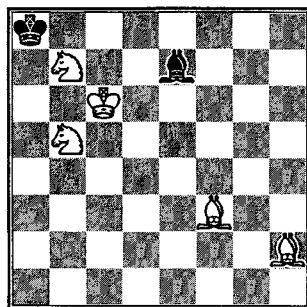
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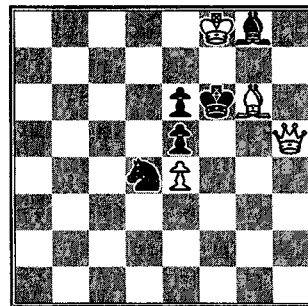
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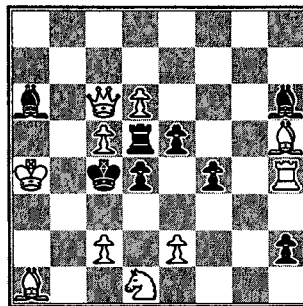
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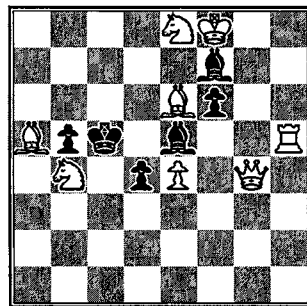
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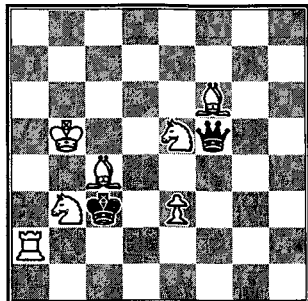
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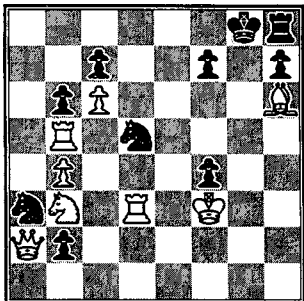
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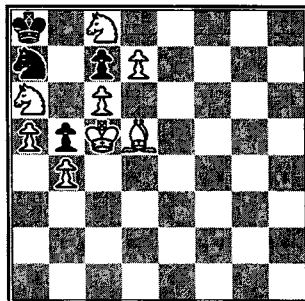
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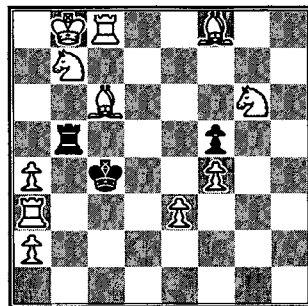
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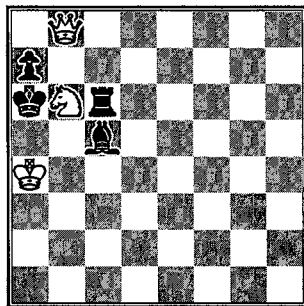
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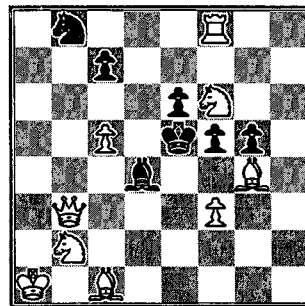
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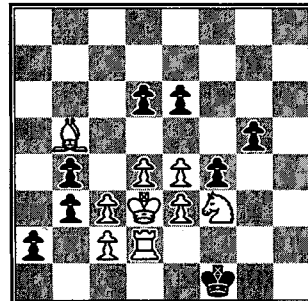
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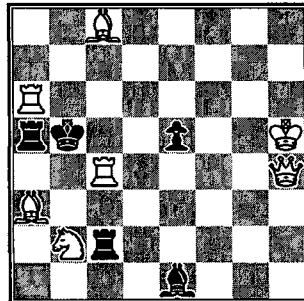
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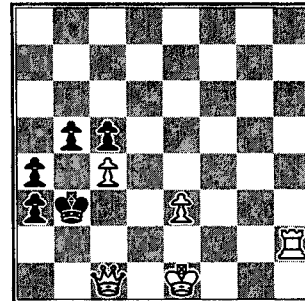
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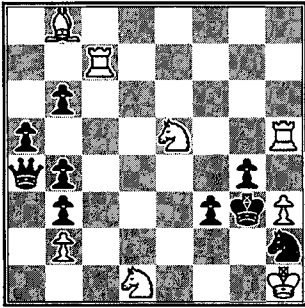
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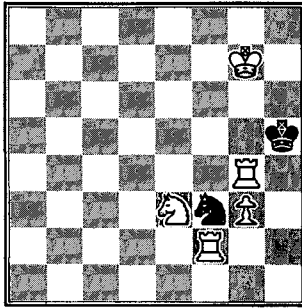
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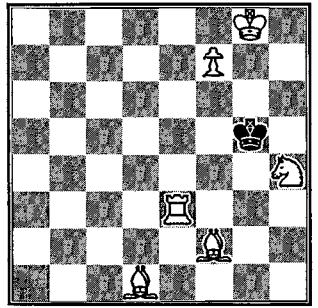
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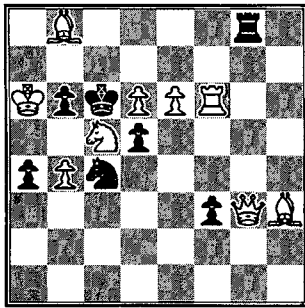
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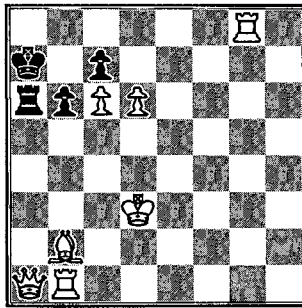
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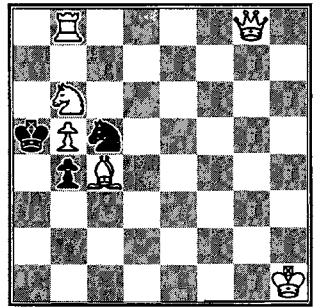
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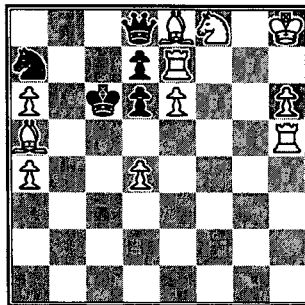
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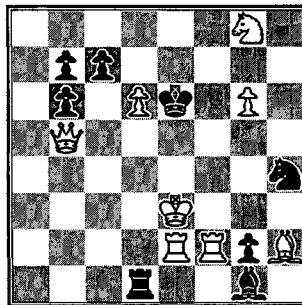
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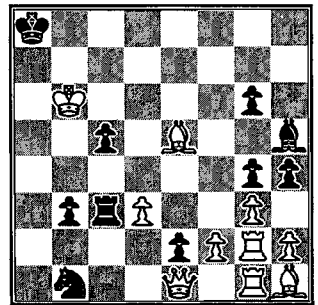
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SOLUTIONS AND COMMENTARY

1 Key 1 **Kg3** (>2 Qh2) Sf1+/Se4+/Sf3 2 Qxf1/Qxe4/Qxf3. The WK voluntarily walks into two checks to provide the key.

2 Set: 1...Sa7 2 c7. But White cannot retain this set mate, so key 1 **Qb4**, waiting. 1...Sa7/Sc7/Rxd7/Rxc6/exf5/fxe5 2 Qb6/Qb8/Qf8/Qe7/Re8/Qh4. In 5 variations the mating piece makes use of an **open gate**, through which it passes to give mate. In the sixth, the opened gate is on the line between the BK and the arrival square of the mating piece.

3 Set: 1...g6/B~ 2 Qxh6/Qh8. Try 1 Qh2? e6 2 Qd6. 1...e5! Try 1 Qh5? e6 2 Qc5. 1...e5! Key 1 **Qa1**! g6/B~/e6 2 Qh8/Qxg7/Qa3. White tries to maintain the two set mates, but 1...e5 must be provided for. 2 Qh8 reappears as a mate after the key, but now following 1...g6,g5 (**mate transference**). *The potential cooks (unwanted alternative solutions) 1 Qh3 and 1 Qh4 must be prevented, which accounts for the Pe4 and the position of the WK.*

4 Set: 1...Qg4+/Qg5/Sc3 2 Kd5/Ke4/Kxc3. Try 1 Ke3? (>2 Kf4) Qg3+ 2 Ke4. 1...Qg4! Key 1 **Kc5**! (>2 Kb5) Qg5+/Sc3/Sc7/B~ 2 Kc6/Kb4/Kd6/Qxg2. The white **Royal battery** must open somehow, but, surprisingly perhaps, the K moves away from his opposite number.

5 Key 1 **Bxe5**, waiting. 1...Rh4+/Rf4/Rxd4/Sxd4/Sd2/dxe5/fxe5 2 Bh2/Bxf4/Bxf3/Bxe4/Bxf6/Qd7/Qxf7. The BR and BS are **half-pinned**: when one piece moves away, the other is left completely pinned, allowing a **pin-mate**.

6 Key 1 Qb3 (>2 Qxd5) Bxe4/Sfxe4/Sgxe4/dxe4/fxe4/Kxe4 2 Qb8/Sd3/Sxf3/Qb5/Rxg5/Qe3. A "random" capture on e4 (1...Bxe4) allows 2 Qb8. The 5 other captures **correct** the error of causing a **self-block** on e4, but each carries a new weakness that leads to mate. *The Rg7 is underused, but it is hard to see how to give it more to do (e.g. a mate on the e-file) without the addition of further pieces. Irrelevant by-play would contribute nothing to the problem.*

7 Try 1 Qe1? Sf6/Se3/Sg~ 2 Qe7/Qh4/Qe8. 1...Se6! Try 1 Qc2? (>2 Qc8) Sb6 2 Qc7. 1...Sc3! Try 1 Qb3? (>2 Qb8) Sb6 2 Qxb6. 1...Sb4! Key 1 **Qa4**!, waiting. 1...Sf6/Sb6/Sg~ 2 Qa5/Qh4/Se6. The WQ duels with the BSs. *The Pa6 prevents a threat 2 Qa8 after the key. Ideally this P should be black and on a5, but then the try 1 Qe1? would have a dual refutation (1...a4! as well as 1...Se6!).*

8 Set: 1...Sc~/Se~ 2 Qa7/Qc8. Key 1 b7, waiting. 1...Sa7/Sb8/Se~/Sc8 2 b8S/Qb5/Qxc6/bxc8Q. Here the WQ can already cope with all the moves of the BSs, except for 1...Sxd4. But there is no way of retaining the set mates, so a new battle begins.

9 Key 1 **Sg4**, waiting. 1...b4/cxb3/c2/d1/d5/fxg4/f3/g2 2 Qxc4/Qd3/Qxd2/Qxd1/Qe5/Qe4/Qe3/Qf2. The eight pawn-moves lead to different mates by the Q.

10 Try 1 g3? (>2 Sg2) hxxg3! Try 1 f4? (>2 Sf3) Qe2! Try 1 d4? (>2 Sd3) Re3! Key 1 **Rf2**! (>2 Sc2) Sxd3/Sxf3 2 Sxd3/Sxf3. Tries and key illustrate **square-vacation**. The additional try 1 g4? is refuted by 1...hxxg3 e.p.!

11 Set: 1...dxe2/c3 2 Rd4/exd3. Key 1 **Ra1**, waiting. 1...dxe2,d2/c3/B~ 2 Qb1/Ra4/Qh7. The set mates make the solver reluctant to move the R. Once it has left d1, it must make way for the Q to mate on b1 (a **Bristol clearance**). 1...g3 allows a **dual**: 2 Qxf3 or 2 exf3. *There is no point in trying to prevent this, as it has nothing to do with the main idea of the problem.*

12 Key 1 **Bh3** (>2 Rxg5) Sxh3/Sxe4/Se6/Sxf7/Qxf7/Qe8 2 Qf5/Rg6/Qb5/Rxg8/c8Q/fxe8Q. Open gates by the BS: the WQ and the WR move through g5 to deliver mate.

13 Try 1 Be6? (>2 Kg5) Ra5 2 Rg8. 1...g2! Key 1 **Kg5**! (>2 B~) Ra7/Ra5+/Ra4/Ra2/Ra1/g2 2 Bd7/Bf5/Bg4/Bg2/Bf1/Bxg2. **Half-battery** in a **miniature** setting (7 pieces or fewer). If 2 Kg5 is to be threatened, 1...Ra5

must be catered for, hence the B's choice of e6 in the try.

14 Try 1 Qc6? Bxa2/Bc2 2 Rd1/Qd5. 1...e2! Key 1 **Qg4!**, waiting. 1...Bxa2/Bc2/e2/Kc2 2 OOO/Qd4/Qxe2/Qe2. The point lies in the **changed mate** after 1...Bxa2: after the try the WK must continue to guard to e2, but following the key the castling move is necessary, so that the WK guards c2. (In chess problems, castling is deemed to be legal unless it can be proved that either K or R must have moved in the fictitious "game" leading to the diagram position.) The key here is of the **give-and-take** variety: e4 is taken away as a BK-flight, and c2 offered in exchange. It is a weakness that 1...Ke4 does not have a set mate.

15 Key 1 **Ba7** (>2 Qxd4) S~/Sc6/Se6/Sxf5/Sf3/Se2/Qd2/gxh6 2 Qxe7/Qd5/Qe5/Qxf5/Qxe3/Qc2/Sxg3/Sf6. A **random** move by the BS (e.g. to b5, b3, c2) allows 2 Qxe7. There are 5 **corrections**, where the S prevents this mate by a careful choice of arrival square. Each time White answers with a Q-mate. *The Sh5 is needed to give the mate 2 Sxg3 after 1...Qd2. It is usually an advantage if such a piece can be given a second function without the addition of too much force (e.g. no more than one black unit). Here nothing extra was needed. The Pf7 helps to hide the WK, which must be somewhere.*

16 Try 1 fxc7? (>2 Qg5) f6! Try 1 exd7? (>2 Qxe5) gxf6! Try 1 b5? (>2 Qa3) d6! Try 1 dxe5? (>2 Qc5) d5! Key 1 **d5!** (>2 Qc5) d6 2 Qa7. Somehow the WQ must penetrate the wall of pawns.

17 Key 1 **Sg5**, waiting. 1...Qxf3+/Qg4+/Qxh4+/Qxg5/Qh6/S~/g6/exf3 2 Bg3/fxc4/Rxh4/Bxg5/fxe4/Se6/Rf8/Qd2. The **self-pin** of the BQ leads to a **cross-check** mate by the unpinned WB. 1...e3 allows the dual 2 Qg3 or 2 Qh2. *Adding a WP h2 to prevent this is pointless.*

18 Set: 1...R~/g2 2 Qxg4/Qf2. Key 1 **Bxg4**, waiting. 1...Rxe5+/Rh5/Rxg4/g2/cxb2 2 Be2/

Bxh5/Qf6/Rf2/Rc4. A **mutate**: every black move has a set reply in the diagram, but White cannot maintain the block position and must therefore introduce new mates. The changes and the **added mate** (1...Rxg4 2 Qf6) include a **switchback** by the B (2 Be2). *As is often the case with mutates, quite a lot of force is on the board to eliminate white waiting moves that would cook. E.g., remove the Ps on the b- and c-files and add BP d4. There are then 8 cooks by the Rc2, and two more by 1 Kd2 and 1 Se3!*

19 Try 1 Rd5? (>2 S~) Rc2 2 Rxa5. 1...Ra4! Try 1 Ra3? (>2 S~) a4! Try 1 S~? (>2 R~) Ra4! Key 1 **Sa3!** (>2 R~) Rb2/Rc2+/Rxd2/a4 2 Rb3/Rc3/Rxd2/Rd5. Which half-battery piece goes where? This is the solver's usual dilemma with such problems.

20 Set: 1...Sd~/Sxe8/Sf~ 2 Qf7/Qxe8/Qg7. Key 1 **f7** (>2 Qg8) Sxf7/Se7/Sg7 2 Qxf7/Qh6/Qxd6. This is a **block-threat** in the diagram every black move has a set reply, but White, unable to maintain the block, plays a key that carries a threat. *In its original form, with the Sd6 on h6, this was not a block-threat but a mutate, with the same key. But the cook 1 Qh7 meant that the S had to be positioned on d6, so that 1 Qh7? would fail to 1...Sxe8! It is a pity that, in the correct version, this capture, set with the reply 2 Qxe8, gives a dual after the key (2 fxe8Q as well as the threat). When your aim is a miniature setting, you cannot simply add force to eliminate a cook!*

21 Try 1 Qf1? S7~/S5~/e4/g5 2 Sxb5/Qd3/Qf6/Sdf5. 1...b6! Key 1 **Qh1!**, waiting. 1...S7~/S5~/e4/g5/b6/e2/cxd2 2 Qd5/Qe4/Qh8/Sef5/Sc6/Qg1/Qa1. Four mates are changed between the **virtual play** (introduced by the try) and the **actual play** (following the key). *During the construction of this problem, the question arose whether 1 Qf1 or 1 Qh1 should be the key. The dual after 1 Qf1 e2 (2 Qg1/Qf2) decided the issue.*

22 Key 1 **Qg2**, waiting. 1...d1Q/d1S/f1Q/f1S/b3/bxa3/f3/g5/S~ 2 Qxf2/Bc1/Qxd2/Qxg1/Bxc5/Rxa3/Qg5/Sf5/Qf3. A study in **dual-avoidance** by promoting pawns. 1...d2-d1

seems to allow two mates, but actually only one is playable if Black promotes to Q (2 Qxf2) and the other if the promotion is to S (2 Bc1). Similar play occurs after promotions by the f-pawn. In a 2-mover Black's choice of R or B for a promoting P is not deemed to give rise to a dual (alternative mates), even if White has two possible mates as a result (here 1...d1B? 2 Qxf2 or 2 Bc1). *The WR a2 and WB a3 each give a second mate, and only a single BP is needed to make this possible. One rarely has such luck when composing! The key, however, is rather strong and obvious - not so lucky here.*

23 Try 1 Qg8+? Rf7/Re6/Se6 2 Sf4/Se3/Bb7. 1...e6! Try 1 Qg5+? Rf5/Re5 2 Sf4/Se3. 1...e5! Try 1 Qh1+? Se4! Key 1 **Qg2+**! Rf3/Re4/Se4 2 Sf4/Se3/Qa2. A **three-phase** problem, in which White's checking tries and key lead to transferred pin-mates. Checking keys are not common in the 2-mover, but they (and checking tries) are justified when the play is of interest and cannot be achieved otherwise. *The WR b4 could be replaced by a WB c3, with the WS f1 moved to d1 to rule out the set check 1...Rb1+. But then the WQ would have been under attack from the Re1, and even in a problem with checking tries and key this seemed undesirable.*

24 Try 1 Qf3? Ra7 2 Qf8. 1...Rf7! Try 1 e7? Ra7 2 e8Q. 1...Rxe7! Key 1 **Qd5!**, waiting. 1...Ra7/Rb7+/Rxc6+/Rd7/Rc8 2 Qd8/cxb7/Qxc6/cxd7/c7. Clearly a mate must be arranged along the top rank after 1...Ra7. Only one of the three plausible ways to do this caters for all the moves of the R. *Why the WS a6, and not a WP a7? Because of the cook 1 Kxc7 Kxa7 2 Qa4.*

25 Try 1 e5? (>2 Qe4) Qh4/Qg4 2 f4/fxg4. 1...Qf5! Key 1 **f4!**, waiting. 1...Qg5/Qf5/Qe5/Qd5/Qxc5+/S~ 2 e5/exf5/Sxe5/exd5/Qxc5/Sb4. Another half-battery problem, in which the try carries a threat but the key waits for Black to commit himself.

26 Key 1 **Qf8**, waiting. 1...fxe6/f6/f5/fxg6/Kf6 2 Qf4/Qh6/Qxf5/Qxe7/Qxe7. **Pickaninny**: dif-

ferentiated mates after the maximum 4 moves of a single BP. *No need to worry about 1 Qxf7? as a potential cook: it's stalemate!*

27 Tries 1 Qg1/Qh1/Qe1/Qf5/Qg2? Sb2! Tries 1 Qh3/Qd3? Ka2! Key 1 **Qf3!**, waiting. 1...Sb2/Ka2 2 Qa3/Qa8. Only the key provides mates for Black's two strongest defences.

28 Key 1 **e7** (>2 Qe6) Sxb4/Sb6+/Sc7/Sxe7+/Sxf4/Qc4+/Qxb4/Sf3/Sf5 2 Rxb4/Rxb6/Rxc7/Rxe7/R7b5/Rxc4/Rxb4/Qg6/Qf3. 5 openings of the **masked** B+R battery. White's Q+B battery is given no chance to fire!

29 Try 1 Qd7? Se3/Sb4 2 Qd3/Qd1. 1...Sc3! Key 1 **Qb7!** Sxf4/Sb4 2 Qf3/Qh1. Amazingly, the Q has only one square from which she can answer all the BS's moves. *Not 1 Qxd5? stalemate!*

30 Try 1 Bxd2? b5 2 Bb3. 1...bxa5! Try 1 Bd3? d1Q! Key 1 **Be2!** (>2 Bc3/Bxd2). 1...b5/bxa5/Bb8 2 Bd1/Bc5/Sxb6. What to do about the Pd2 when it promotes to Q? Answer: arrange a double **shut-off**, on the diagonal d1-g4, and on the d-file.

31 Set: 1...Rxe6/Ba3 2 Qxe6/Qd4. Key 1 **Sc6** (>2 Qxe7). 1...Re8+/Rf7+/Rg7/Rxe6/Rxd7/Ba3 2 dxe8S/exf7/e7/d8Q/exd7/Qe5. The problem was built around the post-key activity of the BR. The two set mates changed by the key were a lucky addition.

32 Try 1 Qb7? S~/Qe5 2 Qb3/Qb4. 1...Qa5! Key 1 **Qd7!**, waiting. 1...S~/Qe5/Qd6/Qb6/Qa5 2 Qd3/Qa4/Qb5/Qd5/Qd4. The WP e4 is the reason why the try fails.

33 Set: 1...Rc7+ 2 Kxc7. Key 1 **Qe3** (>2 Qxa7) Rc7+/Rb7 2 Sxc7/axb7. The solver may be reluctant to abandon the Royal battery with the set reply to the check.

34 Try 1 Bc2? Qb2! Try 1 Bd3? Qd4! Try 1 Bf5? S~! Try 1 Bg6? Bh8! Key 1 **Bh7!**, waiting. 1...Qb2/Qc3/Qd4/Qe5/S~/Bh8/Re~/Rxe6/Rf~ 2 Qxb2/Qxc3/Qxd4/Bxe5/Qf4/Qxh6/Be7/Rxe6/Rf7. Tries with **common error**: four

times the B obstructs the WQ so that Black has a playable refutation. The B has to move to open the line to e6 (1...Rxe6 2 Rxe6).

35 Try 1 Rh6? (>2 Bxe4) S~! Try 1 Rf6!? S~ 2 Rf5. 1...Se5! Try 1 Re6!? S~ 2 Re5. 1...f5! Try 1 Ra6!? S~ 2 Ra5. 1...Sc5! Try 1 Rb6!? S~ 2 Rb5. 1...Sc5! Key 1 **Rc6!!** (>2 Bxe4) S~/f5/Sd6 2 Rc5/Bg8/Rxd6. **White correction:** the first try is a random move by the R, which fails to provide a mate for 1...S~! Four further tries correct this error, but three of them are refuted by a specific BS-move. The fourth try (1 Re6!?) is a white self-interference. The key is a double correction: everything is provided for, and no new weaknesses occur. *The BP e4 merely allows 1 Rf6!? to work as a try (1...S~ 2 Rf5). It is a moot point whether this P is justified. If this had been a book of Merediths (problems with 8-12 pieces), it would certainly have been omitted!*

36 Try 1 Re2? Sd1 2 Re5. 1...B~! Try 1 Rd2? B~/Se~ 2 Rd5/Rc2. 1...Sd1! Key 1 **Rf4!**, waiting. 1...Se~/Sc4/Sd5/B~/R~/Sc1/Sd2 2 Rf5/Se4/Sd3/Rc4/Rb5/Se4/Sd3. White's B+R battery is doubly masked, by pieces that are half-pinned by the R's moves. *The S b3 and the B a2 are on the board solely because there is no other way to stop 2 Bxd4 after 1...Sc4/Sd5.*

37 Key 1 **Qb5** (>2 Qxd7) Ra7/Rd8 2 Qb8/Qh5. The computer claims No Solution, because it is not programmed to know that Black can't castle! (The reason why, of course, is that Black's last move must have been with K or R, since the Ps have not moved.)

38 Set: 1...Sb~/c5/exf4 2 Qc4/Qd5/Rd4. Try 1 Rh3? (>2 Qf3) 1...Sg3! Key 1 **Rf3!**, waiting. 1...Sb~/c5/exf4/Sf~ 2 Qd3/Qb7/Rxf4/Rc3. The **pendulum** key changes the set replies to three black defences. *The S f1 is a very useful piece. In addition to guarding e3, it provides a refutation for the try 1 Rh3?*

39 Try 1 Qe1? (>2 Qe6) Se3/Se7 2 Qb4/Qxe7. 1...Be4! Try 1 Qa4? (>2 Qc6) Sb4/Se7 2 Qxb4/Qf4. 1...b5! Key 1 **Qc2!** (>2 Qc6)

Sf4/Se7/Rc8 2 Qc7/Qh2/Rd7. A threat of mate on e6 is refuted by a line-closing defence (1...Be4!). So White switches to the left and threatens mate on c6, but his first attempt falls foul of another line-closing refutation (1...b5!). Only on c2 can the Q avoid being shut off.

40 Try 1 dxe6? Rd8/Rd7/fxe6 2 exf7/exd7/f7. 1...Rxc6! Try 1 Rxc7? Rd8/Rxc6/exd5 2 Rd7/Rxc6/Re7. 1...Rxd5! Key 1 **Qb5!**, waiting. 1...Rd8/Rxc6/Rxd5 2 d6/dxc6/Qxd5. White has three ways of setting up a battery to cope with moves of the BR. The three units WQ, WR and WP d5 interact with one another in a cyclic pattern. *The B+P battery top right serves mainly to provide a mate after 1 dxe6? fxe6 (2 f7). However, the B does at least guard f6 throughout the play, thereby justifying its existence. And moving this B to g5 and removing the Pg3 would lead to the cook 1 Qb2, which could only be prevented by the addition of a WP!*

41 Try 1 Sh6? (>2 Sg4) Bh5! Try 1 Sh4? (>2 Sf3,Sxg6) Bh5! Try 1 Sg7? (>2 Re6) Bf7! Try 1 Se7? (>2 Sc6,Sxg6) Be8! Try 1 Sg3? Bh5/Bf5/Bxe4 2 Qg5/exf5/Qxe4. 1...Bh7! Key 1 **Sd4!** (>2 Sc6,Sf3,Re6) Bxe4 2 Qg3. The WS battles it out with the BB. In the end the only way is to threaten three mates. The three black moves that refute the tries, 1...Bh5/Bf7/Be8, allow the threats to work in pairs. *The play after 1 Sg3? is better than that following the key. But there is no way of providing a mate after 1...Bh7. And in any case 1 Sd4! cannot be refuted. The cyclic appearance of the threats perhaps provides some compensating interest.*

42 Try 1 Re1? (>2 Rg1) f2/Se3 2 Rg3/Rxe3. 1...Se5! Try 1 Rb1? (>2 Rg1) Se5/Se3 2 Rxe5/Rxe3. 1...f2! Try 1 Rxf3? (>2 Rg3) f4! Try 1 Ra6? (>2 Ra8) bxa6/Sb6 2 Rb8/Rxb6. 1...Sd6! Key 1 **Rxb7!** (>2 Rb8) Sb6/Sd6 2 Rxb6/Rxd6. Four tries and a key make this masked half-battery problem quite a puzzle for the solver. *You cannot save units by removing the Ps h6 and h7 and shifting the whole position one file to the right, because those Ps*

would be needed to stop cooks on the new a-file.

43 Set: 1...Re2/Be2/S~ 2 Bxd3/Re3/Qe5. Key 1 **Qd2**, waiting. 1...Re2/Be2/S~/Kd4/d4 2 Qxd3/Qe3/Qf4/Qb4/Bb7. Mutual interference between BR and BB on the same square is termed a **Grimshaw**, after a famous 19th-century composer. Here the mates following the Grimshaw are changed by the flight-giving key. This problem was composed in its entirety without sight of the board.

44 Try 1 Qe1? (>2 Qh4) Sf2! Try 1 Qa4? (>2 Qe8) Sxe3 2 Qh4. 1...f4! Key 1 **Qc2!** (>2 Qxf5) Sxe3/f4 2 Qh2/Qg6. The Q makes threats of mate from three different directions.

45 Key 1 **Qd6**, waiting. 1...Sc~/Sxa6/Sa~/Sb7 2 Qb8/Qxa6/Qc6/axb7. Each BS moves at random, allowing a **secondary threat** to be played, and corrects the **general error** of the random move by preventing this secondary threat, but in so doing commits a new error.

46 Key 1 **Rg1**, waiting. 1..Kh2/Kxh4 2 Sf1/Bf2. 1 OO? would solve if only it were legal! But Black's last move must have been Kh2-g3, which means that the WR must have moved.

47 Try 1 Qd2? Ra1+/Rb1/Rd1/Re2/Re4 2 Sa2/Sxb1/Sxd1/Sxe2/Sxe4. 1...Re3! Key 1 **Qg5!** (>2 Qd8,Be4) Ra1+/Rb1/Re8 2 Ba2/Bb3/Be6. Battery-play introduced by try and key, with a cross-check mate after 1...Ra1+.

48 Try 1 Ra3? Kxc6/cxd4 2 Rb2/Rg5. 1...Bd1+! Key 1 **Ra2!**, waiting. 1...Kxc6/cxd4/B~/c3 2 Rb3/Rf5/Sa7/Qxa4. White's half-battery is **indirect**, in that it is aimed not at the BK but at a flight-square. *Black's refutation is, unfortunately, brutal, but a more subtle one would have needed extra force, thereby taking the setting out of the Meredith category.*

49 Try 1 Be6? (>2 Rd5) Rf8! Try 1 Bg8? (>2 h8Q) Re7! Key 1 **Bf7!** (>2 g7) Rf8/Re7/e3 2 Rd5/h8Q/Rh4. The paradoxical **Dombrovskis** theme (named after a well-known Russian

composer): the mate threatened by White's try is refuted by the very move that allows that mate (not now a threat) after the key. The theme is doubled here in a Meredith setting. *The R d4 is given something extra to do by the P e4, which cuts the line c1-h6 when it moves. The P e2 prevents a cook by 1 Rxe4? (1...e1Q!).*

50 Set: 1...Sxe3/Sxe7 2 Qa1/Qxc7. Key 1 **Rd8** (>2 Rxd5) Sxe3/Sxe7/Rb5/Bxe6/Rxe6 2 Qxc7/Qa1/Qd4/Sxf3/Sf7. **Reciprocal change**: the two captures by the S d5 are answered by mates A and B in the set play, and by mates B and A after the key. *The differentiated self-blocks on e6 are not linked to the theme, but as the white force and the BB g4 needed to make them work have to be on the board anyway, it seemed appropriate to include them, only the R h6 being added for the purpose.*

51 Try 1 Bd2? Se7/Sc7/Sxb6/Sb4/Sc3/Se3/Sf4 2 fxe7/bxc7/Ba5/Bxb4/Bxc3/Bxe3/Bxf4. 1...Sxf6! Try 1 Ra1? (>2 Ra8) Sxb6! Try 1 Re1? (>2 Re8) Se3! Key 1 **Rh1!** (>2 Rh8) Sxf6/Se7/Sc7 2 Bxf6/fxe7/bxc7. The solver may be tempted by 1 Bd2?, which seems to allow mates after all the BS's moves (**BS-wheel**). But in fact 1...Sxf6!, set with the mate 2 Bxf6, is now unprovided.

52 Key 1 **Sc6**, waiting. 1...Kxa4/Ka6/Kxc6/Kc4 2 Qa5/Qb6/Qd7/Qd3. BK **star-flights**.

53 Set: 1...Re3/Rxg3/Rf4/Rf5/Rxf2 2 fxe3/fxg3/f3/f4/Qxf2. Try 1 Qh1? Rxd3/Rxf2/Rf4 2 Qd5/Qe4/Qd5. 1...Sc3! Try 1 Qf1? (>2 Sc6) Rxd3 2 Qxd3. 1...Rf6! Try 1 Qc1? Rxd3/Rf5 2 Qf4/Qe3. 1...Rxf2! Key 1 **Qe1!** (>2 Qe4) Rxd3/Rf4/Sc3/Sd2 2 Rxg4/Qe3/Qxc3/Qa1. There is a set **Albino** (four moves by a WP) which answers four of the BR's moves, but Black's strongest move, 1...Rxd3, has no set mate. The three tries and the key provide four different replies.

54 Key 1 **Qh1** (>2 Kc7) Bb8/Kb8 2 Kxb6/Qh8. The lightest problem in the book. Did you spot the key at once?

55 Key 1 **Ra7**, waiting. 1...Qa8/Qc8/Qd8/Qe8/Qf8+/Qc7 2 bxa8Q/b8S/exd8Q/b8Q/exf8S/e8Q. The R seems well placed, being **ambushed** behind the BQ. The key introduces six differentiated promotions by the two WPs.

56 Try 1 e7? Rf8/Rf7/Rxg6/Re6 2 exf8Q/gxf7/Rxg6/Sf5. 1...Rf5! Key 1 **g7!**, waiting. 1...Rf8/Rf7/Rf5/Rxf4/Sc7/dxe6/b5 2 gxf8Q/exf7/Sxf5/Qxf4/Qa3/Qc6/Qc5. White's try and key are obvious enough moves in this masked half-battery arrangement, but the solver may not immediately spot the refutation of the try.

57 Try 1 Bd~? (>2 Sd4) e3 2 Bd3. 1...e5! Try 1 Be5!? (>2 Qf4) fxe5! Key 1 **Bxf6!!** (>2 Qg5) Kxf6/gxf6/Bxf6/e3 2 Qf4/Sd4/Sd6/Qf3. **Threat correction:** since random B moves fail to 1...e5!, White tries blocking this P, but in so doing cuts out his initial threat through unpin of c5 and introduces a new one. When this try also fails, White brings in a third threat by capturing the P f6 and guarding g5. The moves threatened by the tries reappear as mates in the post-key variation play. *It is regrettable that 1...e5! defeats the random tries by the B in two ways, namely by guarding d4 and by unpinning c5. But without the threat of a pin-mate, 1 Be5!? would not be a correction. The changed and transferred play compensates to some extent for this weakness.*

58 Try 1 Kf6? (>2 Qe7) Ra7! Key 1 **Sd5!** (>2 Qe7) OOO/Kd8/Ra7 2 Qb7/Qf8/Qb8. In no. 37 Black cannot castle; here, of course, he can - if White will let him!

59 Key 1 **f7** (>2 Qe7) Qc8+/Qd8/Qe8/Qf8/Qxh5/Qe5+ 2 bxc8S/Qxd8/fxe8S/Qf6/f8Q/fxe5. The BQ's moves lead to six differentiated mates, including three promotions. *I Sxh8? is stalemate, which is why the WP h5 is not a BP h4.*

60 Try 1 Sxf6? (>2 Bxf2) Bf8! Key 1 **Bxf6!** (>2 Sxf2) Bf8/Bxf6/S~/Sxd1 2 g6/Qh7/Qg4/Sxg3. As with many half-battery problems, the questions for the solver are "Which piece?" and "Where to?"

61 Try 1 e5? (>2 Qxf4) Bxd5/fxe5 2 Raxd5/Sf5. 1...Bxh7! Key 1 **c5!** (>2 Qxb4) Bxd5/Bxc5/f5/Sc3/Se3 2 Rhxd5/Sb5/h8Q/Qf2/Qb2. White's initial P-moves shut off one or the other R, so that in each phase there is only one reply to 1...Bxd5.

62 Key 1 **Be6**, waiting. 1...h6/S~/Bg~/Bxe6/Bxe7+/Rxf7+/Bd~/Re8/Rg8 2 Kg6/Kg5/Kf5/Kxe6/Kxe7/Kxf7/exf8Q/fxe8Q/fxg8Q. The Royal battery opens six times. The key prevents the B g4 from playing to d7 or c8. *A minor dilemma for the composer is to decide where on the diagonals to place the WBs. The composer likes them where they are.*

63 Key 1 **Kc3**, waiting. 1...Ke5/Ke3/f2 2 Kd3/Qd3/Qe2. White must provide a mate in reply to 1...Ke3, and the only way to do so involves giving Black another flight.

64 Set: 1...Bxd5+ 2 Sxd5. Try 1 f3? (>2 d6) Bg3! Try 1 e4? (>2 d6) Rd3! Try 1 Rf3? (>2 d6) Rh6! Try 1 c6? (>2 d6) Bxb4! Key 1 **Sc6!** (>2 d6) Bxc6/Sf7 2 Rxc6/Rxf7. Four attempts to unpin the P d5 fail because White opens a line enabling the BR h3 or the BB e1 to guard the mating square. *A fifth try 1 Bc6? (1...Bxc6!) could be added if the BR a4 were on a3 and a BP added on b3 (this to prevent 1...Rxb4! from refuting 1 Bc6?). But such an addition would detract from the unity of the four line-opening tries.*

65 Try 1 Rd4? Rc2! Try 1 Rc3? Rd2! Key 1 **b4!** Rb3/Rxb4+/Rb1 2 Rc2/Rxb4/Qa3. To refute the tries by the WR, the BR must avoid playing on to the file where the WR is. *A pity that the WP a5, needed to prevent 1 Ka5 from cooking, rules out a miniature setting.*

66 Key 1 **Sb4**, waiting. 1...Qd2/Qxd1/e4/S~/Sf5/c3/b2 2 Qg1/Qxd6/Qxg7/Qe4/Qb6/Qxd3/Sc2. Four unpins of the WQ, two by withdrawal and two by interference. 2 Qg1 would work each time if three of Black's four unpinning moves did not carry some positive "arrival" effect.

67 Set: 1...Se4/e6 2 Rf3/Qc5. Key 1 **Qg7**, waiting. 1...Sd7/Sd5/Se4/Bxf5/Bh5/e6/Sh6/g2 2 Qxc3/Qe5/Qd4/Qxg3/Qg5/Qa7/Qxh6/Bf2. 6 open-gate mates, with two changes. Compare no.2.

68 Try 1 bxa3? c2 2 Qb2. 1...Kb3! Try 1 bxc3? Rxc3! Try 1 b3? R~! Key 1 **b4!**, waiting. c2/Kb3/R~ 2 Qxc2/Qb1/Bd5. Maximum activity (4 moves) by a WP: Albino tries.

69 Key 1 **Be2**, waiting. 1...Qh2/Qf5/Qxe4+/Qg4/Qg5 2 Sf6/Sg3/fxe4/f4/fxg4/hxg5. The key provides for Black's only move lacking a set reply (1...Qd6) without sacrificing the set mates, which include unpins of the S and a Q self-pin.

70 Set: 1...gxh3 2 f3. Try 1 Qe2? (>2 Qxg4) gxh3 2 Qh5. 1...f3! Try 1 Qe4? gxh3/f3 2 Qxf4/Qxg4. 1...e5! Key 1 **Qe5!**, waiting. 1...gxh3/f3/exf5 2 Qxf4/Qg3/Qxe7. White must abandon the set mate and has two possible ways of providing a new one. *Why the P c3? Without it 1 Qb4 cooks.*

71 Try 1 S3xb5? (>2 Sc3) Ka4/Bb4 2 Qa3/Qa7. 1...Qxc7! Key 1 **S7xb5!** (>2 Sc7) Qb6/Ka6/Qd5/Be3/cxb5 2 Qa3/Qa7/bxa8Q/Ra2/Qxb5. The mates 2 Qa3 and 2 Qa7 are transferred between the virtual and the actual play. The threats are switchbacks of the S. *The WK's position prevents a potential cook by 1 Rxd2 (1...Qd5+!).*

72 Set: 1...Kd6/Bd6 2 e8Q/Qxc8. Key 1 **Qf7** (>2 e8S) Kd6/Bd6/Bd8/Re8/Rf8 2 Qd5/e8Q/exd8Q/Qe6/exf8Q. Four different promotions of the WP, with some incidental set play.

73 Key 1 **Bb4**, waiting. 1...Qf1+/Qc3+/Qxd4+/Qxb3/Qxb4/Qxc2 2 Rb1/Rxc3/Rb2/Bxb3/Qxb4/Ra3. Unpinning the BQ allows three checks - but White can cope!

74 Try 1 Rc3? (>2 Rf5) Qd3+/Qh4/Qh2/fxg5 2 Rxd3/Rd4/Rd2/Rf5. 1...Qh1! Try 1 Rg4? (>2 Rd3) Qh1! Try 1 Rh4? (>2 h8S) Qxh4 2 Rd4. 1...Bxh7! Try 1 Rf5? (>2 Rc3) gxf5! Key 1 **Rd3!** (>2 Rg4) Qxd3/Qh2/Qh1/fxg5 2 h8S/

Rc2/Re4/Rf4. Each WR can shut off the BQ in two directions to threaten mate by a second shut-off. Unless she can give check, the Q must stay on the h-file, or else White will play 2 h8S.

75 Try 1 Qc2? (>2 Qc6) Sc4 2 Qg2. 1...Sf6! Key 1 **Qe2!** (>2 Qe6) Sb8+/Sc5+/Se5/Sf6/Se4/d3 2 Bxb8/Bxc5/Bxe5/Rg5/Qa2/Qxd3. At first sight the position looks more or less symmetrical. But the WR g6 makes all the difference: 2 Rg5 is available after 1 Qe2 Sf6.

76 Try 1 axb4? (>2 Kc3) axb4! Try 1 c5? (>2 Kc4) b5! Try 1 e5? (>2 Ke4) f5! Try 1 gxf4? (>2 Ke3) gxf4! Key 1 **Kd4!**, waiting. 1...b3/b5/f3/f5 2 Kc3/Kc5/Ke3/Ke5. Four attempts to find a flight-square for the WK fail. So White must abandon the idea of a threat and play a waiting move with the K.

77 Try 1 Qh5? (>2 Qe2) f1Q 2 Qa5. 1...Sg3! Key 1 **Qh2!**, waiting. 1...f1Q/f1S/Sg3/Kf1 2 Qd2/Qe2/Qxf2/Qxh1. Dual avoidance by promotion.

78 Key 1 **Qh7** (>2 Qb7) d1Q/d1S/Rxf1+/Bxd4/Rc2 2 Rb2/Sd2/Rxf1/Rb5/Bxc2. Correction by promotion: 1...d1Q opens the line from h2 to c2, but 1...d1S! prevents the mate that this opening allows. However, promotion to S is an unpun of the S f1. *As with so many two-movers where the interest centres solely on the post-key play, most of this problem was put together without serious thought as to the possible key. It was a matter of luck that the position allowed the WQ to make a good withdrawal key, thereby making use of her orthogonal powers in the threat.*

79 Try 1 d4? (>2 Qxe5) Rxe4 2 d5. 1...c4! Key 1 **f4!** (>2 Qxe5) Rxe4/Rd5/Rf5/c4/Bxf4/Bf6/Sf6/Sc6 2 f5/exd5/exf5/Sd4/Sxf4/Qd7/Qe7/Qf7. The try fails because the P has occupied a square needed by the WS e2. The key works because White has the mate 2 Qd7 after 1...Bf6, so f4 can be blocked by the P.

80 Key 1 **Qe6**, waiting. 1...Re8/Rf8/Rg8/Rh8/Rxd7 2 Qxe8/gxf8Q/Qxg8/gxh8Q/g8Q.

The Q sets up a battery, which, however, can never open. *The WP a5 stops a cook by 1 Qa4. a5 is the best square for this necessary unit: on a4, b4, c4 or d4 it would curtail the Q's activity, while on a6 it would allow a cook by 1 a7.*

81 Set: 1...Rxh6 2 Qe1. Key 1 **Qa4** (>2 Rh2) Rxh6/Rg1/Rf1/Re1/Sc6+/Se2/Sb3/Ra1/Rxb2 2 Qd1/Rg2/Rf2/Re2/Qxc6/Qc2/Qc4/Qxa1/Rd1. A mate set for Black's strongest move, 1...Rxh6, is abandoned by the key, which replaces it with another and threatens a shut-off by the B+R battery. *The WK's position allows full use to be made of the Q's ability to give 3 mates on a single file.*

82 Set: 1...f3/g3 2 Qe3/Qf3. Key 1 **Rxh4**, waiting. 1...f3/g3/Kxf5/S~/Sd3/e6 2 Qxf3/Sxg3/Qe6/Qc2/Qd5/Sd6. The key gives a flight and sets up a half-pin of the Ps f4 and g4, thereby changing the set mates that follow their moves.

83 Try 1 h4? (>2 Bh3) Qf4! Try 1 Se5? (>2 Bf3) Bg1! Try 1 f6? (>2 Bf5) exf6! Key 1 **h6!** (>2 Bh5) Qf4/Bxf5/Sxf3/Sxg2 2 Qh4/Bxf5/Bxf3/Rxg2. How to get the B out of its cage? Only the key does not contain a fatal weakness.

84 Try 1 Scb6? (>2 Rc6) Rc1/Se7 2 Sc3/Qxf6. 1...gxf4! Try 1 Sd~? (>2 Rc6) Rxd1! Key 1 **Sdb6!** (>2 Rc6) Rxd1/Se7/Rxb6/Rc8/Bg2 2 Sd2/Rd6/d8S/dxc8Q/f5. Once again it is a case of deciding which S must move to enable White to threaten 2 Rc6. There is correction by the S d5, whose random move fails to provide a mate for 1...Rxd1!.

85 Try 1 Qd7? (>2 Qxe6) Bc1/Bb2/e5/Sf2 2 Qd1/Qd2/Qxg4/Rxf2. 1...Sxg3! Key 1 **Qf7!** (>2 Qxe6) Bc1/Bb2/e5/Sf2,Sxg3 2 Qf1/Rd2/Qxc4/Qf2. The key works - and the try doesn't - because the Q must mate on f2 after 1...Sxg3, with support from the Rf8.

86 Try 1 Qg8? Rxc6/Re6 2 Qc4/Qg1. 1...Rxf5! Key 1 **Qh8!**, waiting. 1...Rxc6/ Rxf5/Rd6/Rf8+ 2 Qe5/Qd4/Qc3/Qxf8. The try looks more

promising than the key because it carries threats. After the key there are no threats - but the R must move!

87 Tries 1 Sa5?/Sc5?/Sd8? (>2 K~) Bd6! Try 1 Kb6? Bd8+/Bc5+ 2 Sxd8/Sxc5. 1...Bd6! Key 1 **Kc7!** Bd8+/Bd6+ 2 Sxd8/Sxd6. A study in half-battery play in miniature. *The B h2 does nothing after the key, but its presence is crucial to the problem.*

88 Try 1 Bf7? Bxf7! Try 1 Bh7? Bxh7! Try 1 Bf5? Sxf5! Key 1 **Qh6!** Bf7/Bh7/Sf5 2 Bxf7/Bxh7/Bxf5. The **Vladimirov** theme: White's moves A, B and C (the three tries) are refuted by different black defences X, Y and Z. After the key, X, Y and Z are followed respectively by A, B and C as white mating moves.

89 Key 1 **e4** (>2 Qxd5) dxe3 e.p./fxe3 e.p./Rxc5/Rxd6/Bb7 2 Sxe3/Be2/Bf7/cxd6/Qb5. Half-pin with *en passant* captures. *The white force is not well used here, especially the B a1 and S d1. But several more units would have had to be added to make everything pull its weight, and the position is already more than heavy enough for the relatively meagre play.*

90 Key 1 **Qg7**, waiting. 1...Bxe8/Bxe6/Bxh5/f5/d3 2 Qe7/Qc7/Qa7/Qxe5/Qg1. A random move by the BB f7 allows three WQ mates. Specific defences allow only one of these and eliminate the other two. Compare no.86, where Black's thematic piece is a R.

91 Key 1 **Sd2**, waiting. 1...Qb1+/Qc2/Qd3/Qe4/Qg6/Qd7+/Qxe5+ 2 Sxb1/Sef3/Sxd3/Sxe4/Sxg6/Sxd7/Bxe5. Four withdrawal unpins of the S e5.

92 Try 1 Sa5? bxa5 2 Rb8. 1...Sa~! Try 1 Sc5? Sf6! Try 1 Sd4? Se7! Try 1 Sd2? b1! Try 1 Sa1? bxa1Q! Key 1 **Sc1!**, waiting. 1...Sa~/Sf6/Se7/b1/f6 2 Qa8/Rg5/Rd8/Qg2/Qxd5. White has no possible answer to 1...f6,f5 other than 2 Qxd5. So clearly the S b3 must move, but where to? Only one square is safe - and it isn't in the corner! Four of the tries illustrate

white interference: the S closes a line needed by another white piece.

93 Key 1 **axb6 e.p.** (>2 b7) cxb6+/Sxc8/Sxc6 2 Sxb6/dxc8Q/Bxc6. What was Black's last move? Not Kb8-a8, because the S a6 could not have just moved there. Nor Kb7-a8, because the P c6 has been on that square for some time. Pb6-b5 is not possible either, because the WK would have been in check. So the e.p. capture is justified. Working out previous play in this way is known as **retrograde analysis**.

94 Key 1 **Rb3**, waiting. 1...Ra5/Rc5/Rd5/Rb6/Rxb7+/Rxb3 2 Sxa5/Sd6/Bb5/Se5/Bxb7/Be4. Plenty of play from the BR. As in no. 78, the idea of the key came late in the construction process. This time, however, the composer was unlucky: the key is makeshift, and therefore obvious.

95 Set: 1...axb6 2 Qa8. Try 1 Sa8? (>2 Qb5) Rb6 2 Sc7. 1...Bb6! Try 1 Sc8? Rb6 2 Qxa7. 1...Bb6! Try 1 Sd7? Rb6 2 Sxc5. 1...Bb6! Key 1 **Sd5!** (>2 Qb5) Rb6/Bb6 2 Sc7/Sb4. The tries with the S share the **common aim** of opening the line b8-b5 and providing for 1...Rb6. But only the key provides for 1...Bb6!

96 Try 1 Qc4? Bxc5/Be3/Bxb2+ 2 Qxc5/Sd3/Bxb2. 1...c6! Key 1 **Be3!**, waiting. 1...Bxc5/Bxe3/Bxb2+/Bc3/c6/f4/fxg4/S~ 2 Sc4/Qxe3/Qxb2/Qxc3/Qxb8/Qxe6/Sxg4/Sd7. Three mates are changed between virtual and actual play. The main weakness is that the try and key would be better the other way round. But 1...c6! makes a good refutation, and devising something acceptable to refute 1 Be3 would not be easy.

97 Try 1 cxb3? (>2 Kc2) a1S! Try 1 cxb4? (2 Kc3) a1Q! Try 1 d5? (>2 Kd4) e5! Try 1 e5? (>2 Ke4) d5! Try 1 exf4? (>2 Ke3) gxf4! Key 1 **Rh2!** (>2 Kd2) bxc3/fxe3 2 Kxc3/Kxe3. Five vain attempts to open the Royal battery.

98 Key 1 **Rc3** (>2 Qb4,Qc4) Rxc3/Bxc3/Rh2/Bxh4/e4/Ra4 2 Qb4/Qc4/Rc5/Rb3/Qg5/Qxa4. A **Nowotny** key: the WR plays to the cutting-point of BR and BB lines, threatening

two mates. Captures of the R eliminate one or other of the threats. The R itself delivers two mates, when the black pieces move away. *The WK's position is convenient for two reasons: firstly, it allows the pinning defence 1...Rh2, and secondly it prevents a dual after 1...e4 (not 2 Qh5).*

99 Key 1 **Kd2**, waiting. 1...Ka2/Kb4/a2/b4/bxc4 2 Kc3/Qc3/Qc3/Qc2/Qb1. Shutting off the WR and so allowing another flight is White's only route to success. *The WP e3, which prevents 1 Rh3+ from cooking, could be alternatively on f3, g3 or h3. Where it is, it looks as if it might get involved in the play, e.g. if a flight were granted on c3 or c4.*

100 Try 1 Sc6? f2/gxh3/Kf4 2 Rf7/Rg7/Re7. 1...Qb5! Key 1 **Sd7!** (>2 R~) f2/gxh3/Kf4/Qc6/Qxd7/Qb5 2 Rc3/Rc4/Rc4/Rxc6/Rxd7/Rc5. The BQ must not get to e8, from where she would control White's diagonal battery from two directions. So the WS has two possible arrival squares, but the R c7 must be allowed to play a shut-off mate after 1...Qb5.

101 Set: 1...Sg5 2 Rh4. Key 1 **Rg6**, waiting. 1...Sg5/Sh4/Sg1/Sd4 2 Rh6/g4/Rf5/Rh2. The change after 1...Sg5 is a lucky bonus.

102 Try 1 f8S? Kf4/Kf6 2 Se6/Sh7. 1...Kh6! Key 1 **f8B!**, waiting. 1...Kf4/Kf6 2 Bh6/Be7. Stalemate must be avoided, so only under-promotions can be considered. Other uniquely defeated tries: 1 f8R? Kh6! 1 Kg7? Kf4! 1 Re4? Kf6! 1 Re5+? Kf6! 1 Re6? Kf4! 1 Bg3? Kf6!

103 Try 1 d7? (>2 Qc7) Rxg3/Se5/Sd6/Rc8 2 d8S/e7/Qxd6/dxc8Q. 1...Rxb8! Key 1 **e7!** (>2 Bd7) Rg4/Se5/Rd8/d4/bxc5 2 e8Q/d7/exd8S/Qxf3/b5. Half-battery play with promotions and various other mates. *The P f3 prevents the unwanted mate 2 Bg2 after 1...d4. Many composers would omit it, and they may well be right to do so. But the P a4 cannot be omitted, as it stops a cook by 1 Sb3.*

104 Set: 1...b5 2 Bd4. Tries 1 Bh8?/Re1?/Rf1?/Rg1?/Rh1? Ra5! Key 1 **Bd4!**, waiting.

1...cxd6/Ra5/Ra4/Ra3+/Ra2/Rxa1 2 Bxb6/
Qxa5/Qxa4/Qxa3/Qxa2/Rxa1. Each try pro-
vides a different mate to follow 1...cxd6.

105 Try 1 Qd5? b3/Sa4/Sa6 2 Qd2/Qa8/bxa6.
1...Sb7! Try 1 Qg7? b3/Sa4/Sa6 2 Qc3/Qa7/
Qa1. 1...Sb7! Try 1 Qd8? b3/Sa4/Sb7 2 Qd2/
Ra8/Ra8. 1...Sa6! Try 1 Qg2? b3/Sa4/Sa6 2
Qd2/Qa8/Qa2. 1...Sb7! Key 1 **Qg1!**, waiting.
1...b3/Sa4/Sa6/Sb7 2 Qe1/Ra8/Qa1/Ra8. The
first two tries (1 Qd5? and 1 Qg7?) and the
key introduce three phases in which the
defences 1...b3 and 1...Sa4 lead to three
different pairs of mates. This pattern is a
Zagoruyko. The changes are not of particular
interest, however: those on the diagonal, where
the Q plays to three different squares on the
same line, would be described as **concurrent**.
Of greater interest, perhaps, is the cumulative
effect of the try-play, which makes it hard for
the solver to determine just which of the WQ's
moves is the key.

106 Try 1 Rxd7? Qf6+/Qxa5/Qxe8/d5 2 Rg7/
Rb7/Rc7/Rxd8. 1...Qg5! Key 1 **exd7!**, waiting.
1...Qxe7/Qxa5/Qxe8/d5/Sc8/Sb5/Qxd7 2 d8S/
d8Q/dxe8Q/Re6/dxc8Q/axb5/Bxd7. A B+R
battery ought to be more use than a B+P
battery, but perhaps not when the P is on the
7th rank. This one promotes four ways in the
seven post-key variations. *The S f8 does not
really justify its existence. It protects the WK
from check by 1...Qxe8. So why is the WK not
on d1, for instance? Well, then the rather
pleasant variation 1...Qf6+ 2 Rg7 would be
lost. But that's only in the virtual play, after 1*

*Rxd7?, you might argue. True. So if you
prefer, put the WK on d1 and remove the S f8.
You may well be right!*

107 Key 1 **dxg7**, waiting. 1...Rd2/Rd3+/
Rd4/Rd5/Rd6/Rd7/Rd8/Re1/Bxh2/Bxf2+/
Sxg6/Sf3 2 Kxd2/Kxd3/Kxd4/Qe8/Kf4/Qe5/
cxd8S/c8Q/Rf6/Kxf2/Qf5/Kxf3. Every move
by the R d1 up the file is set with a mate. But
1...Re1 must be catered for, as well as moves
by the c-pawn. The answer is to allow the R
two more moves at the top of the file. The
Royal battery opens six times (maximum
activity).

108 Try 1 h3? (>2 Rh2) gxh3! Try 1 gxh4?
(>2 Rg3,Rg4) g3! Try 1 f4! (>2 Rf2,Rxe2)
gxf3 e.p.! Key 1 **Rf1!** (>2 Rgg1) hxg3/
exf1Q/Sd2/Rc4 2 Rxg3/Qe4/Qa1/Qa5. White's
three tries are refuted by different moves of the
P g4. After making the key, the R g1 retires
from the scene of action.

* * * * *

Cover problem: Tries 1 Qa3?/Qc5?/Qh6? Kd8!
Tries 1 Qg3/Qf4/Qb6/Qa7? fxg6! Try 1 Qg5?
f6! Try 1 g7? Kd8! Key 1 **Qb3!** (>2 Qb8) fxg6
2 Qg8. Eight tries by the WQ and a ninth by
the g-pawn. *Problems where the placing of the
pieces is determined by the shape you want to
produce very often have useless force, nor-
mally BPs. Fortunately, in this case every unit
is needed. It is questionable whether the same
can be said for the problem as a whole!*

INDEX

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This is a book both of and about chess problems. Anyone who knows the moves of chess and is fascinated by what the pieces can do will enjoy studying the diagrams and working out how White, to move, can mate Black on his second move, whatever defence Black may play. At the same time the Introduction and the comments that appear with the solutions will provide an insight into the chess problem as an art form, by explaining such things as the problem's theme, the interplay of the pieces, the relationship between the moves, and those other aspects of the composition that give chess problems their particular appeal.

The author, a retired schoolmaster, is a full-time chess problemist. He first turned to problems at the age of eleven, and his first published composition appeared when he was fifteen (*Chess*, 1953). Since then, if the 112 originals in this booklet are included, he has published about 800 problems, some forty of which have appeared in the Albums of selected problems published under the auspices of the FIDE. On the strength of this he gained the title of International Master for Chess Composition in 1969. He is the author of an *ABC of Chess Problems* (1970) and co-author of *Chess Problems: Introduction to an Art* (1963) and *The Two Move Chess Problem* (1966), all published by Faber, and also co-author of *The Serieshelpmate* (Q Press, 1971 and 1978). He is a committee member of the British Chess Problem Society and was the Society's President from 1983 to 1985. He is currently British delegate to the Problem Commission of the FIDE. Most of his published problems are direct-mate two-movers, but his enthusiasm extends to chess problems of all types.